

Table 4-17
Hot Spot Locations - Alternative 5
Non-Tidal Wetland Areas
Investigation Area H1 Feasibility Study
Mare Island, Vallejo, California

Subarea Location	Location	Collection Date	Upper Depth (feet)	Lower Depth (feet)	Analyte	Concentration (mg/kg)	Risk Criteria										Is Sample Location Included in Alternative?	
							Exceeds HH PRG	Threat to GW PRG	Exceeds Eco High TRV, HQ=1		Exceeds Eco High TRV, HQ=3		Exceeds Eco High TRV, HQ=5		Exceeds Eco High TRV, HQ=10			
									non-T&E	T&E	non-T&E	T&E	non-T&E	T&E	non-T&E	T&E		
Northwest Dump Road Wetland	IR01GB085	11/2/1998	2	2.5	Arsenic	36.3	x											No ³
		1/24/1995	0		Antimony	53.1				x		x		x		x		Yes
					Chromium	174			x		x		x		x			
					Copper	2,320			x	x	x	x	x	x			x	
					Lead	950	x		x	x	x	x	x	x				
				3	Tin	65.6											x	
					Total PCBs	4			x		x		x					
					Zinc	1,480			x	x	x						x	
					Copper	1,760											x	
					Lead	1,000	x											
	IR14VB139	5/4/1993	3.33	3.83	Nickel	423											x	
					Tin	110											x	
					Total PCBs	970	x										x	
					Zinc	3,420											x	
					Chromium	3,100										x	No ²	
					Nickel	447										x		
					Zinc	793										x		
West (Pond 1)	IR01GB120	11/10/1999	4	4.5	Benzo(a)anthracene	3.6821										x	Yes	
					Benzo(a)pyrene	3.0884										x		
					Benzo(b)fluoranthene	2.755										x		
					Chrysene	3.742										x		
					Fluoranthene	5.6279										x		
					Indeno(1,2,3-cd)pyrene	1.4573										x		
					Phenanthrene	2.2809										x		
					Pyrene	6.3265										x		
	IR01GB121	11/10/1999	1	1.5	Antimony	19.5				x		x					Yes	
					Arsenic	143	x			x		x				x		
					Barium	429			x		x							
					Benzo(a)anthracene	0.9029										x		
					Benzo(a)pyrene	0.3252			x							x		
					Chrysene	1.3254										x		
					Copper	2,150			x	x	x	x	x	x		x		
					Fluoranthene	2.3151										x		
					Lead	2,790	x		x	x	x	x	x	x	x	x		
					Phenanthrene	0.9858										x		
			2	2.5	Pyrene	2,7181										x		
					Selenium	3.6			x							x		
					Total PCBs	1			x									
					Zinc	16,800			x	x	x	x	x	x	x	x		
					Anthracene	49.589										x		
					Benzo(a)anthracene	15.406										x		
					Benzo(a)pyrene	3.6674										x		
					Benzo(b)fluoranthene	4.3169										x		
					Chrysene	18.5404										x		
					Fluoranthene	98.2243										x		
					Indeno(1,2,3-cd)pyrene	1.0979										x		
					Phenanthrene	85.3286										x		
					Pyrene	52.2949										x		

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									non-T&E	T&E	non-T&E	T&E	non-T&E	T&E	non-T&E	T&E		
West (Pond 1)	IR01GB121	11/10/1999	4	4.5	Aluminum	77,600											x	Yes
					Benzo(a)anthracene	38.6168											x	
					Benzo(a)pyrene	26,046	x										x	
					Benzo(b)fluoranthene	30.85											x	
					Chrysene	38,6333											x	
					Copper	1,340											x	
					Fluoranthene	80,3271											x	
					Indeno(1,2,3-cd)pyrene	10,3041											x	
					Lead	5,460	x										x	
					Nickel	366											x	
					Phenanthrene	51,7382											x	
					Pyrene	74,6613											x	
					Zinc	829											x	
			6	6.5	Benzo(a)anthracene	46,3247											x	No ²
					Benzo(a)pyrene	40,1935	x										x	
					Benzo(b)fluoranthene	44,2161											x	
					Benzo(g,h,i)perylene	18,5943											x	
					Benzo(k)fluoranthene	29,4321											x	
					Chrysene	49,6007											x	
					Copper	1,260											x	
					Fluoranthene	81,3671											x	
					Indeno(1,2,3-cd)pyrene	18,4204											x	
					Lead	6,890	x										x	
					Nickel	495											x	
					Phenanthrene	18,0591											x	
					Pyrene	76,4138											x	
					TPH as motor oil	8,600											x	
					Zinc	1,370											x	
	IR01GB122	11/10/1999	4	4.5	Copper	834											x	Yes
	Nickel	493											x					
	Zinc	1,080											x					
WS-SB01	WS-SB01	11/17/2003	0	0.5	Copper	470		x	x								x	Yes
					Lead	290		x	x								x	
					Total PCBs	0.59			x								x	
		1/26/2004	1.5	2	Barium	180			x									
Wetland A	FF-SB06	11/21/2003	2	3	Benzo(b)fluoranthene	11											x	Yes
					Pyrene	6											x	
					TPH as motor oil	17,000	x										x	No ²
			6	7	Benzo(a)anthracene	0.33											x	
					Benzo(a)pyrene	0.66											x	
					Fluoranthene	0.84											x	
					Pyrene	1.4											x	
	IR01GB095	11/3/1998	1.5	2	Manganese	1,790		x	x									Yes
	IR01HA036	11/6/1998	1.5	2	Chromium	257		x	x		x		x		x		x	Yes
	Copper	755		x	x								x					
	Lead	415		x	x		x		x		x		x					
	Nickel	222			x		x		x		x		x					
	Zinc	498		x														
	IR01HA037	11/9/1998	1.5	2	Barium	330		x									x	No ¹
	IR16-B3B5-K16	4/12/2004	2	2.5	Copper	2,600												No ²
	IR16SS424	7/6/1994	0	0.5	Chromium	176		x		x		x		x		x		Yes
	IR16SS451	9/30/1994	0	0.5	Lead	145			x		x		x		x		x	Yes

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							HH PRG	GW PRG	Exceeds Threat to T&E	Exceeds Eco High TRV, HQ=1		Exceeds Eco High TRV, HQ=3		Exceeds Eco High TRV, HQ=5		Outlier		
										non-T&E	T&E	non-T&E	T&E	non-T&E	T&E	non-T&E	T&E	
	WETASD005	6/18/1997	0	0.5	Mercury	2.2			x		x							No ⁴
		6/18/1997	1	1.5	Mercury	2.6			x		x							No ¹
	WETASD009	6/17/1997	0	0.5	Lead	159				x								
	WETASD012	6/17/1997	1	1.5	Manganese	2,340			x	x	x							Yes
Wetland B	IR01HA008	5/10/1994	0	0.5	Chromium	179			x		x		x		x			Yes
					Nickel	155				x		x		x		x		
	IR01HA009	7/12/1994	0	0.5	Chromium	182			x		x		x		x			Yes
					Lead	178			x	x								
	IR01HA010	7/12/1994	0	0.5	Chromium	157			x		x		x		x			Yes
	IR01HA011	7/12/1994	0	0.5	Chromium	172			x		x		x		x			Yes
					Vanadium	192				x		x						
	IR01HA012	7/12/1994	0	0.5	Chromium	168			x		x		x		x			Yes
	IR01HA013	7/15/1994	0	0.5	Chromium	180			x		x		x		x			Yes
					Lead	181			x	x								
					Total PCBs	0.7			x									
			2.5	3	Copper	296											x	No ²
	IR01HA014	7/15/1994	0	0.5	Chromium	184			x		x		x		x			Yes
	IR01HA015	7/27/1994	0	0.5	Chromium	182			x		x		x		x			Yes
	IR01HA016	7/27/1994	0	0.5	Chromium	166			x		x		x		x			Yes
	IR01-SB04	2/14/1991	3.5	4	Copper	321											x	No ²
	IR02GB016	11/9/1993	1.5	2	Chromium	170			x		x		x		x			Yes
	IR16SS406	6/8/1994	0.25	0.5	Chromium	164			x		x		x		x			Yes
					Lead	169				x								
	IR16SS407	6/8/1994	0.25	0.5	Chromium	193			x		x		x		x			Yes
	IR16SS408	6/8/1994	0.25	0.5	Chromium	165			x		x		x		x			Yes
	IR16SS430	7/6/1994	0	0.5	Chromium	177			x		x		x		x			Yes
					Copper	629			x	x							x	
					Lead	399			x	x								
					Nickel	177				x		x		x				
					Tin	59.8					x						x	
					Zinc	1,790			x	x	x					x		
	IR16SS431	7/6/1994	0	0.5	Chromium	168			x		x		x		x			Yes
	IR16SS435	7/6/1994	0	0.5	Chromium	161			x		x		x		x			Yes
					Lead	229			x	x								
	IR16SS450	9/30/1994	0	0.5	Chromium	196			x		x		x		x			Yes
	WETBSD029	6/17/1997	1	1.5	Arsenic	43.2	x				x							No ³
	WETBSD030	6/17/1997	1	1.5	Mercury	2.2			x		x							No ⁴
	WETBSD031	6/17/1997	0	0.5	Arsenic	37	x				x		x		x			No ^{1,3}
	WETBSD032	6/16/1997	1	1.5	Manganese	4540			x	x	x		x		x		x	Yes
	WETBSD033	6/16/1997	1	1.5	Nickel	152				x		x		x		x		Yes
	WETBSD034	6/16/1997	1	1.5	Manganese	2430			x	x	x							No ¹
	WETBSD035	6/16/1997	0	0.5	Nickel	131				x		x		x		x		Yes
					Arsenic	36.5	x											
					Barium	128			x									
					Nickel	149			x		x		x		x			
			1	1.5	Mercury	2.5			x	x								
	WETBSD036	6/16/1997	1	1.5	Arsenic	37.1	x											Yes
					Barium	206			x									
					Mercury	2.2			x		x							
					Nickel	131				x		x		x		x		
	WETBSD037	6/16/1997	0	0.5	Lead	172				x								Yes

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									non-T&E	T&E	non-T&E	T&E	non-T&E	T&E	non-T&E	T&E				
Wetland C	WETBSD050	4/22/1999	0	0.5	Mercury	2.4			x		x								Yes	
					Nickel	140				x		x		x						
		4/23/1999	0	1.5	Manganese	4,810			x	x	x		x		x				No ¹	
					Nickel	148				x		x		x		x				
	WETBSD051	4/23/1999	0	0.5	Nickel	132				x		x		x		x			No ¹	
	WETBSD053	4/27/1999	0	0.5	Barium	121			x										Yes	
					Mercury	5.1			x		x		x		x					
	WETBSD055	4/28/2005	0	0.5	Nickel	132				x		x		x		x			No ¹	
	IR01HA001	4/29/1994	0	1	Chromium	189			x		x		x		x		x		Yes	
	IR01HA002	5/3/1994	0	0.5	Chromium	173			x		x		x		x		x		Yes	
Wetland D	IR01HA003	5/3/1994	0	0.5	Chromium	192			x		x		x		x		x		Yes	
	IR01HA004	5/5/1994	0	0.5	Chromium	172			x		x		x		x		x		Yes	
	IR01HA059	11/6/1998	1.5	2	Total PCBs	2			x		x		x		x		x		Yes	
	H-14	12/29/2004	0	0.6	Manganese	3,800			x	x	x		x		x		x		No ⁴	
	WETDSD025	6/23/1997	0	0.5	Barium	142			x										No ¹	
					Barium	164			x											

Notes:

1- This sample location is not included as part of the alternative since the concentration is lower than the upper threshold value for this chemical.

2- An outlier concentration was present at this location but did not present a risk to human or ecological receptors. This point is not included in this alternative.

3- The site-wide 95% UCL for arsenic is below background (36 mg/kg). This point is not included in this alternative.

4- This point is not included as part of the alternative since removal of this chemical would create extensive damage to the wetland.